

To: Shamet, Stefania[Shamet.Stefania@epa.gov]; Seligman, Andrew[Seligman.Andrew@epa.gov]
From: Jacobus, Thomas P WAD
Sent: Fri 1/23/2015 4:06:05 PM
Subject: Washington Aqueduct Discharge Plan Basin #1, Georgetown (UNCLASSIFIED)

Classification: UNCLASSIFIED

Caveats: NONE

Stef and Andrew,

This email describes the steps Washington Aqueduct will take to discharge the solids remaining in Basin #1 at Georgetown.

1. Description of the Current Situation.

Currently the drain is closed and there are approximately 7 million gallons of water in the basin. That water came from the conduit that delivers water from the Dalecarlia Reservoir to the Georgetown Basins. The solids that had previously been deposited in the basin over the last two years were stirred up and placed into suspension by the use of a front end loader driving through the basin. Since the solids are very light material it was easy to obtain a thorough mixing.

On Wednesday (21 January 2015) our operators obtained a representative sample of the liquid and used our Microwave based SMART Turbo Moisture/Solids Analyzer (<http://www.cem.com/smart-turbo.html>) to determine the percent solids. It was 1.6 percent solids. That corresponds to a concentration of 16,000 milligrams/Liter.

2. Monitoring/Sampling Plan.

- a. Two hours before we open the drain valve we will re-agitate the solids to get them fully back into suspension and take a sample from a platform at the basin to determine if it less than 1.6 percent solids. If it is not we will introduce more clear water and repeat the agitation and sampling until it is below 1.6 percent solids.
- b. Once the drain valve is opened we will introduce more clear water from the conduit adding to what is currently there.
- c. When the drain valve is opened, we will collect a sample and do a percent solids analysis. That process takes about 30 minutes.
- d. We will then take samples every 4 hours during the draining from the sample point shown on the attached site plan of the reservoir. The solids collected to be measured are taken from a manhole that intercepts the pipe that takes the solids from the basin to Outfall 004. There is no other material introduced to the pipe after the manhole before it discharges to the Potomac River.
- e. We will only drain during the daytime so that we can carefully monitor it. Our estimate is that in total it will take about 48 hours to drain the basin.
- f. After we stop for the day, before we begin the next day we will use the front end loader to re-suspend the solids before resuming draining.
- f. During the draining we will continue to introduce more clear water which will have the effect of consistently lowering the concentration of the solids.
- g. For the first 8 hours of the draining we will introduce one unit of fresh water for every two units of

water discharged. Afterwards we will slowly cut back on the fresh water so that the basin can become empty.

3. Actions to be taken in case of exceedance of 1.6 percent solids concentration.

If we determine that the percent solids exceeds 1.6 (or 16,000 mg/L) we will immediately close the valve and add more water and re-agitate the basin.

I am available to provide additional information as needed.

Thank you

Tom J
202-764-0031 office
202-345-9910 cell

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